

NutritionTimes

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Five Common Sports Nutrition Myths

Ellen Coleman, RD, MA, MPH

The mass media and popular press often glamorize dietary supplements or practices that supposedly enhance our health or athletic performance. As the stories about nutrition are passed on in the locker rooms and fitness centers, they often become more inaccurate, to the point of becoming a myth. To help put some of these misconceptions to rest, I'll address five popular sports nutrition myths.

Myth #1: Vitamin supplements increase energy and improve performance.

In fact, they don't. Vitamins are metabolic regulators, which help govern the processes of energy production and tissue growth, maintenance, and repair. Contrary to popular belief, vitamins do not provide energy, although some vitamins are important for the release of energy from food. Only protein, carbohydrate and fat provide energy (calories). This means that in general the vitamin requirements of an active person are not greater than those of a sedentary person.

Supplementation at levels exceeding the Recommended Dietary Allowance or Adequate Intake level does not improve the performance of well-nourished individuals. Although vitamin and mineral deficiencies can impair athletic performance, it's very unusual for active people to have such deficiencies. There is a close relationship between caloric intake and vitamin intake – the more food eaten, the greater the vitamin intake. Active people generally eat more than sedentary people and so tend to get more vitamins and minerals in relation to their needs.

Most health authorities agree that there is no harm in a simple vitamin/mineral supplement, provided that it does not exceed 100% of the Recommended Dietary Allowance or Adequate Intake level for nutrients. Keep in mind there is also no evidence that this supplementation is beneficial.

People often feel that their "run down feeling" is due to a vitamin or mineral deficiency. When there is a nutritional reason for fatigue, it is usually an inadequate intake of calories or carbohydrate. People who are always tired may be eating too little carbohydrate or calories for glycogen synthesis, or they may be overtraining. When active people feel better after taking vitamin/mineral supplements, it's probably due to the power of their belief that supplements help – the "placebo effect."

Myth #2: Eating sugary foods before workouts causes fatigue.

Wrong. This myth was based on research in the late 1970's which suggested that consuming 75 grams of glucose (300 calories) 30 minutes prior to exercise reduced endurance by causing hypoglycemia (low blood sugar) and early fatigue. The impaired performance was thought to occur due to high blood insulin levels induced by the pre-exercise sugar feeding.

Fortunately, these insulin and glucose responses are temporary and won't harm performance.

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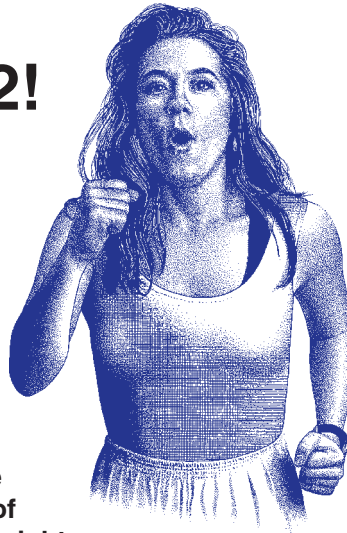
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Winning the War on Fat

A Leaner You into 2002!

By: Leigh-Anne Rice, MPH, RD

"Double, double please" ... "Super size it!" ... "I'll take the combo meal" ... **It's no wonder that we are a society that is not only fat, but we are getting fat faster! The portion sizes of food have been increasing about as fast as our waistlines. The prevalence of obesity has nearly doubled in the last 10 years! According to the Centers of Disease Control and Prevention, obesity has skyrocketed from 12 to 20 percent since 1991. There are more people who are overweight than people who are of normal weight. Imagine that! It is "normal" to be overweight.**



When I lived in France, I noticed that everyone was relatively thin. You could spot an American because they were wearing tennis shoes and were usually overweight. In Paris, if you didn't buy what you needed before 7:00 P.M., you had to wait until the next day! Here in the United States, we can jet down the street to a local market or a liquor store 24 hours a day. We have the consumer power and convenience to purchase whatever our hearts desire. Nothing is out of reach or off limits. Everywhere you go we have access to food and beverages. There are coffee shops in bookstores, snack shops at gas stations, refreshments throughout shopping malls, free food samples at grocery stores, and vending machines practically around every corner.

It's so easy for us to eat junk! Our culture is inundated with misshapen body images that we are all trying to achieve, engrossed with increasingly popular accessibility to convenience food, and coupled with a severe lack of physical activity, all of which promote overeating and obesity! So what do you do to stay lean and stay healthy? Read on...

Get full on less food!

As a child, how many times did your mother or father say to you to "clean your plate"? We are all programmed to eat! As a Registered Dietitian I will let you in on a secret. The most important concept of weight control is portion control. In simplistic terms this means, "**DO NOT** clean your plate." Cut down on your serving sizes. The average meal served in a restaurant serves 2-4 people, not **ONE** ... your favorite appetizer could contain more calories than your meal! For example an order of fried calamari is about 1,000 calories—this is ½ the amount of calories you would need in one day if you consumed a 2,000 calorie diet. If you add the 800 calories from your main entree of spaghetti with marinara sauce that will provide you with the maximum amount of calories you need in an entire day! To make matters worse, include your calories from breakfast, lunch, and/or other snacks during the day, yikes!!! That's enough to tremendously increase your waistline!

It also takes about 20 minutes for your brain to signal you to stop eating. Most people can wolf down a fast food hamburger or taco in about 60 seconds. Which simply means that you will eat more before your brain tells you to stop eating and consume too many calories!

Solutions to get full on less food include the following:

- Only eat ½ of your appetizer and entree;
- Do NOT clean your plate;
- Save the leftovers for lunch the next day;
- At your next meal, slow down and bulk up with high fiber foods that take longer to consume like a salad, vegetables, or pasta.
- Share an entree with a friend.

Don't get juiced!

Have you ever squeezed fresh oranges to make OJ? Then you know just how many oranges it takes to produce a small 6 ounce glass of juice. A lot! That one small glass of fruit juice has all the natural sugars and calories from several oranges. Generally, fruit juice does not provide

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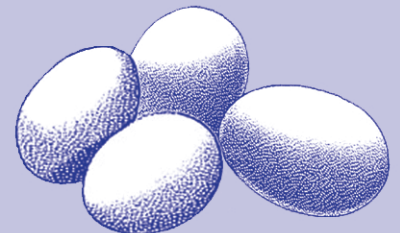
Eggs Can Contribute to Good Nutrition for Seniors

By: Arlene Hoffman, RD

We've all been taught that we must restrict or eliminate our consumption of whole eggs because of the high cholesterol content of egg yolks. Yet recent research highlighted in the electronic newsletter **Nutrition News Focus** reports some studies have shown that eating eggs caused no significant rise in blood cholesterol levels in study participants.

This research outcome is of particular importance to older adults, since nutritionists writing for this newsletter advise that older adults, especially, should worry less about the cholesterol content of eggs. Indeed, the article states eggs can be one of the most nutritious foods for older adults. Eggs contain high quality protein in the whites, and whole eggs also contain important vitamins such as folic acid, vitamin B12, riboflavin (B2), vitamin A, and vitamin D, along with the minerals iron, calcium, and zinc. The rich content of these substances in eggs is especially important, since recent research has shown that older adults may be at risk for low intake - or may need more - of many of these very nutrients. In addition, egg yolks also contain the carotenoids lutein and zeaxanthin; new research has indicated a possible association between consuming a diet rich in these compounds and a decreased incidence of macular degeneration, a type of visual impairment occurring especially in older adults. Furthermore, eggs are very economical, easily chewed and swallowed, versatile, and easy to prepare, all considerations for seniors dealing with the consequences of the aging body and/or the need to keep control on the pocketbook.

Adapted from Nutrition News Focus, July 20, 2000.



The Snake Oil Salesman Goes High Tech A Guide to Reliable Health & Nutrition Information

WASHINGTON (Reuters Health) - The Internet is presenting white-collar criminals with new opportunities for health care fraud, several speakers said Thursday. At a briefing sponsored by BlueCross and BlueShield Association, Darrell Langlois, deputy compliance officer for the health insurer cited the case of a man who was selling a "cure" for chronic fatigue syndrome over the Internet. (Source: HealthCentral: www.healthcentral.com, 2/27/01)

There's no doubt about it; the proverbial snake oil pitch man has discovered the Internet. Yes, our modern age of high tech communications offers a vast array of opportunities to be well informed on any number of topics. But unfortunately, it also opens the door for a whole new world of consumer misinformation and fraud. And this is especially true when it comes to health fraud and nutrition misinformation.

"So," you may be asking, "What *can* I do to protect myself and others from becoming victims of health fraud?"

As the saying goes: the best defense is a good offense: *know where to look for reliable, fact-based health & nutrition information*. To make this easier, the Consumer Education Committee of the Orange County Nutrition Alert Coalition publishes the **Reliable Health & Nutrition Resource List**, which provides a wide choice of references you can turn to for helpful, dependable health and nutrition information. Here are some of the many recommended books, newsletters, and websites on that list.*

BOOKS

Fad-Free Nutrition. Frederick J. Stare, MD & Elizabeth Whelan, Sc.D., MPH, 1998.

Good Food Gourmet (cookbook). Jane Brody

The Honest Herbal: A Sensible Guide to the use of Herbs & Related Remedies. Varro E. Tyler, Ph.D., 1999.

The New American Diet Cookbook. Sonja L. Connor, MS, RD & William E. Connor, MD

Nutrition Bible. Deskin & Anderson, 1997.

Nutrition for Dummies. Carol Rinzler, 1997.

NEWSLETTERS (found in many public libraries, or may be obtained by subscription)

Nutrition & The MD. Lippincott-Raven Publishers, PO Box 1600, Hagerstown, MD 21741-99.

Nutrition Action Health Letter. Center for Science in the Public Interest, Suite 300, 1875 Connecticut Ave., NW, Washington, DC 2009-5728.

Smart Food – Low Cost & Healthy Eating, Nutrition Matters. 2809 E. Hamilton Ave., Dept. 109, Eau Claire, WI 54701.

Tufts University Health & Nutrition Letter. PO Box 57857, Boulder, CO 80322-7857.

University of California at Berkeley Wellness Letter. PO Box 420148, Palm Coast, Florida 32142.

WEBSITES

Alternative Medicine:
www.alternativemedicine.com

Health Finder: www.healthfinder.gov

American Dietetic Association:
www.eatright.org

Mayo Health Clinic: www.mayo.edu

California Dietetic Association:
www.dietitian.org

National Center for Disease Control:
www.cdc.gov

Consumer Health Digest: www.nchf.org/direct/chd.htm

National Institutes of Health:
www.nlm.nih.gov (online newsletter)

Quackwatch: www.quackwatch.com

Council Against Health Fraud:
www.ncahf.org

U.S. Food & Drug Administration:
www.fda.gov

Food for Health: www.healthfinder.net

Tufts University Nutrition Navigator:
www.navigator.tufts.edu

*For a complete resource list, contact Orange County HCA/Nutrition Services, 1725 W. 17th St., Bldg. 50, Santa Ana, CA 92706, phone 714/834-7704. Or contact: lrice@hca.co.orange.ca.us

A Leaner You

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fiber, therefore it does not fill you up. So we tend to discount the added calories in our diet. But a word of caution is in order here. Drinking a lot of fruit juice is a good way to consume too many calories and expand your waistline. We have all heard that "eating is one of life's greatest pleasures" so let's eat! If you choose to drink fruit juice, I recommend no more than 6 ounces per day.

5-A-Day!! It's So Easy!

To promote health, try to eat 5 servings of fruits and vegetables each day. Eating plenty of fruits and vegetables may help protect you against many chronic diseases. Different fruits and vegetables provide different nutrients and other healthful substances, so try to include a variety in your diet. Fruits and vegetables provide vitamins, minerals, and phytochemicals that may have cancer risk-reducing properties, and they also provide a satiety factor that can help you from consuming too many calories. The US Dietary Guidelines for Americans, 2000 recommends that you consume 2 servings of fruits and 3 servings of vegetables each day. It's so easy, here's an example of HOW:

ONE: Include a handful of fresh berries with your yogurt in the morning.

TWO: Have a small to medium sized banana at lunch or snack time.

THREE: Top a sandwich with at least 1-cup of lettuce, tomato, and cucumbers.

FOUR: At dinner, add one half cup of cooked mixed vegetables; and

FIVE: A half cup of marinara sauce with your pasta.

Take Action for Good Health

It's tough for most people to get out every-day and exercise—it's much easier to quit than get fit. However, the latest recommendations state that as an adult you need at least 30 minutes of exercise on most days of the week. Encourage children to partake in vigorous activities for at least 60 minutes a day and limit the time they spend in sedentary activities like watching television or playing video games. People that have lost weight and keep it off are exercising on a regular basis. What's the bottom line? **Keep Moving To GET FIT and Stay LEAN!**

Consult your health care provider when starting a new exercise plan.

Eating Fiber Fights Diabetes

By: Arlene Hoffman, RD

In recent years, medical researchers have been studying the role of dietary fiber in both the prevention and treatment of Type II (adult onset) diabetes. While this form of diabetes is most common in older adults, recent studies indicate that its incidence may also be on the rise in young adults, and *even in teenagers and children.*

Dietary fiber- also known as "bulk" or "roughage"- is a group of carbohydrates found in all plant foods, including fruits, vegetables, cereal grains, seeds & nuts, and legumes (dried beans, lentils, & peanuts).

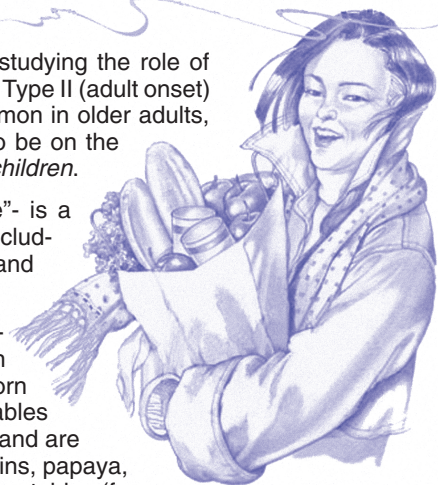
They are classified into one of two groups: water-soluble and water-insoluble. *Insoluble fibers* are in whole grain breads and cereals, in wheat and corn bran, in nuts & seeds, and in the skins of vegetables and fruits. *Soluble fibers* are also in nuts & seeds, and are also in some whole fruits (such as cantaloupe, raisins, papaya, apples, pears, citrus, strawberries); some whole vegetables (for example okra, sweet potato, winter squash, zucchini); legumes; brown rice; and in the bran (outer coating) of corn, barley, and rice.

Both soluble and insoluble dietary fiber are important for good health. Since humans are unable to digest these compounds, they pass through the upper digestive tract into the large intestine, helping to regulate the formation and passage of waste through and out of the colon.

Based on the non-digestibility of dietary fibers, here are some of the ways it is believed that these compounds help control Type II diabetes:

- *Eating a fiber-rich diet can help prevent or correct overweight — a condition closely associated with Type II diabetes. The benefit occurs because high fiber foods allow you to eat a larger amount of food for fewer calories, and also because these foods require more chewing action than low-fiber foods. You feel full and more satisfied with your food intake, even though it is lower in calories.*
- *High fiber plant foods are low in fat, further assisting in weight management.*
- *Some recent research indicates that soluble dietary fiber may help control high blood sugar (the main characteristic of diabetes) by slowing the passage of sugar from the small intestine into the blood stream.*
- *Soluble fibers slow the passage of cholesterol from the intestines into the bloodstream. This helps control blood cholesterol, a condition associated with coronary heart disease, one of the leading complications of uncontrolled diabetes.*

It is recommended that adults consume from 20 to 35 grams per day of dietary fiber.



Here are some ideas to assure adequate fiber intake as an aid to good health, including the control of Type II diabetes:

- *Make the largest percentage of your daily food intake consist of plant-based foods— grain products, fruits, vegetables, nuts and legumes.*
- *Eat at least two servings per day of whole grain breads, cereals, brown rice, etc. Read the nutrition labels on food packages to assure the product contains at least 3 grams of dietary fiber in a standard serving; don't depend on the product name, packaging statements, or appearance as a guide to its fiber content.*
- *Add cooked dried beans and legumes to soups or salads, or mix them into dishes such as chili or stew.*
- *Choose whole fruits and vegetables over juices. If possible, eat them with the skin on.*
- *To avoid digestive distress, add high fiber foods into your diet slowly over several months.*
- *Consume at least 64 oz. of non-caffeinated fluids a day, counting the liquid in soups, stews, milk, juices, etc.*
- *Do not use pure bran or other fiber supplements unless instructed to do so by your healthcare provider.*

SAVE THE DATE!

A conference on "Dietary Supplements: Critical Thinking Skills for Consumers" is scheduled for Friday, May 3, 2002 from 9:00 am to 2:00 P.M. at the Food and Drug Administration facility at 19900 MacArthur Blvd., Suite 300, Irvine CA, 92612.

The conference will feature lectures by: (1) National Council Against Health Fraud (NCAHF) Board member Ellen Coleman, RD, MA, MPH on sports nutrition quackery, (2) National Council Against Health Fraud (NCAHF) Program Director William M. London, EdD, MPH on the unreliability of testimonials, and (3) syndicated nutrition columnist Ed Blonz, Ph.D. on Health Fraud is all Quacked Up!

It will conclude with a discussion of law enforcement issues by a panel of representatives from the FDA, FTC, California Department of Health Services Food and Drug Branch, and AIDS Task Force, San Diego. Nurses may earn contact hours, and RDs and health educators may earn CEUs, for attending the conference.

The registry fee of \$15 covers parking and lunch. For information on registration, contact:

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Note: As always, consult your health care provider before making any major dietary changes, especially if you follow a diabetic meal plan, are on diabetic or other medications, have any digestive disorders, or if you have ever had intestinal surgery. Do not stop taking any diabetic or other prescribed medications unless instructed to do so by your healthcare provider.

Sample 35 gram fiber menu for one day:

Breakfast:	Grams	Dinner:	Grams
1 oz. High fiber cereal	12	1 small Baked Potato	4
1/2 Banana	1	1/2 c. Cooked Peas	2
		1 c. Lettuce (Salad)	1
		1 c. Strawberries	3
Lunch:	Grams	Snack:	Grams
2 slices Whole Wheat Bread	4	1 ounce Peanuts	3
1 leaf Lettuce	1	Total	35 gm
2 slices of Tomato	1		
1 medium Apple	3		

Nutrition Myths

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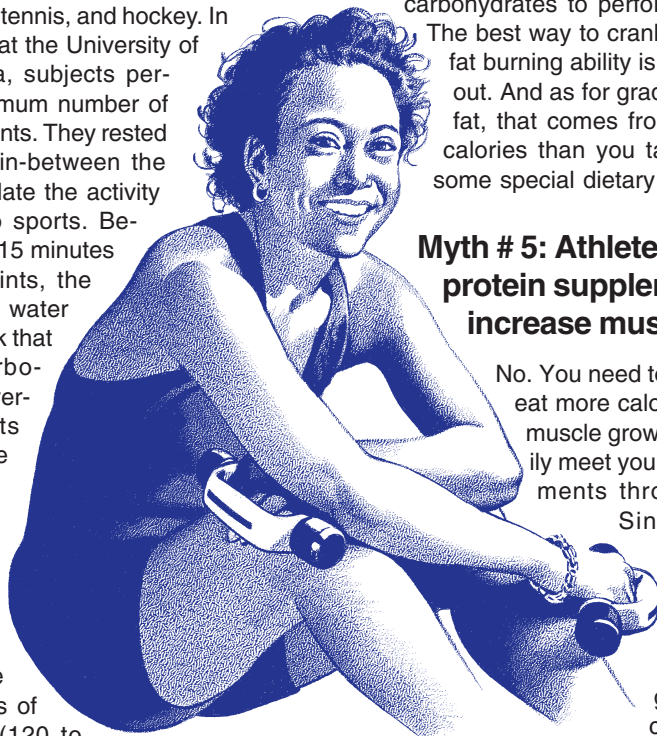
In fact, research studies since 1989 show that consuming carbohydrate (sugar or starch) in the hour before exercise helps your performance. Consuming carbohydrate prior to your workouts provides glucose for your muscles to use when they're running low on glycogen.

Researchers at The Ohio State University found that time-trial performance was improved by 12.5% when the subjects consumed 78 grams of carbohydrate an hour before exercise. The carbohydrate feeding improved performance by maintaining the subjects' blood glucose levels during exercise.

Myth # 3: Only endurance athletes benefit from consuming carbohydrate during exercise.

Not true. Carbohydrates can also help people in stop-and-go sports like basketball, soccer, tennis, and hockey. In a recent study at the University of South Carolina, subjects performed a maximum number of one-minute sprints. They rested for 3 minutes in-between the sprints to simulate the activity of stop-and-go sports. Before and every 15 minutes during the sprints, the subjects drank water or a sports drink that contained carbohydrate. On average, 22 sprints were done when drinking sports drinks and only 15 sprints when drinking water.

Try to consume 30 to 60 grams of carbohydrate (120 to 240 calories) per hour of exercise. You can meet both your fluid and energy needs by drinking a sports drink. Consuming carbohydrate during stop-and-go sports helps to maintain muscle glycogen. The carbohydrate taken in during brief rest periods helps your muscles stay fueled late in the event, when you need energy for your game-winning play.



Myth #4: High carbohydrate diets make people fat and impair athletic performance.

Sounds hard to believe? It is.

Several trendy books claim that to burn body fat and reach your optimum athletic performance, you must eat exactly 40% carbohydrate, 30% protein, and 30% fat at each meal and snack.

A high carbohydrate diet does not make you fat. It's your total caloric intake that's important. You have to eat too many calories to lay down body fat, not just a lot of calories from carbohydrate. Carbohydrates will be converted to fat only if they are eaten in excess. Even then, compared to excess dietary fat, excess dietary carbohydrate is more likely to be burned for energy than stored as fat.

Don't buy into trendy diets that limit your carbohydrate intake. Your performance will suffer. This fad diet doesn't help you burn more fat or change your body's preference for carbohydrates over fat as fuel. You need carbohydrates to perform at your best.

The best way to crank up your body's fat burning ability is to keep working out. And as for gradual loss of body fat, that comes from burning more calories than you take in, not from some special dietary ratio.

Myth # 5: Athletes need protein supplements to increase muscle mass.

No. You need to lift weights and eat more calories to stimulate muscle growth. You can easily meet your protein requirements through your diet.

Since muscle is composed of about 70% water and 22% protein, one pound (454 grams) of muscle contains only about 100 grams of protein. To gain one pound of muscle a week represents an additional 14 grams of protein a day. This is easily supplied by 1 cup of non-fat milk and 1 ounce of chicken (15 grams total).

Your total caloric intake is more important than protein intake when you're attempting to increase your muscle mass. Since

one pound of muscle contains about 3,500 calories, you must increase calorie intake by about 500 calories per day to gain one pound in a week. Many athletes mistakenly emphasize protein intake over caloric intake when trying to "bulk up." If you have difficulty gaining weight, you probably aren't eating enough calories.

The research on protein requirements suggests that athletes may benefit from consuming 1.6 to 1.7 grams of protein/kilogram of body weight/day during periods of muscle building. However, athletes consume more protein when their caloric intake increases as a result of training. When you eat enough to fulfill your caloric requirements, you'll generally take in enough protein.

Ellen Coleman, currently a nutrition consultant at The Sport Clinic in Riverside, CA., is a member of American College of Sports Medicine and of Sports and Cardiovascular Nutritionists (SCAN). She has authored numerous publications on nutrition for exercise and athletics, including co-authorship on her most recent book entitled "Ultimate Sports Nutrition." Certainly no armchair sports dietitian, Ellen is a two-time finisher in the Hawaiian Ironman Triathlon with those particular two being held in the same year.

NutritionTimes

The Nutrition Times newsletter is published biannually by the Orange County Nutrition Alert Coalition of the County of Orange Health Care Agency, Nutrition Services Program.

It is intended to keep the public and consumers informed on reliable nutrition information. The coalition is dedicated to the promotion of optimal health and nutrition through consumer education and awareness.

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We want to know if we are meeting your needs! Please return your comments by fax or mail by April 1, 2002, and your name will automatically be entered into a drawing to win!

Please circle the number that most clearly corresponds to your experience with the quality of ***The Nutrition Times Newsletter***.

5 Excellent 4 Above Average 3 Average 2 Below Average 1 Poor

What is your evaluation of the following (5 being the best):

A. Overall quality of the newsletter	5	4	3	2	1
B. Appropriateness of reading level	5	4	3	2	1
C. Nutrition topics meet your expectations	5	4	3	2	1

How valuable do you find ***The Nutrition Times Newsletter***? (circle one)

A. Very valuable B. Somewhat valuable C. Not valuable

Will you share the information learned from The Nutrition Times Newsletter with your family, friends, and/or co-workers? (circle one)

A. Yes B. No

What topics would you like to see presented in ***The Nutrition Times Newsletter***?



Additional comments:

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